

Barriers and facilitators of early initiation of breastfeeding Practice In Imo State: findings from the perception of Mothers and Health Workers

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ABSTRACT

Background and Objectives: Despite the well-known benefits of breastfeeding, many barriers hinder its early initiation, and several facilitators promote it. Understanding these barriers and facilitators is crucial to promote optimal practice.

Objectives: This research explored the determinants of early initiation of breastfeeding (EIBF), highlighting the factors that affect the decision-making process of mothers and healthcare providers in Imo state, Nigeria.

Methods: This cross-sectional study involved purposive sampling of 66 mother-child pairs and 10 health workers across four primary healthcare centres in Imo state. Semi-structured individual interviews and focus group discussions were used to explore the determinants of the practice of early initiation of breastfeeding. Qualitative data (transcripts) were analysed using the QDAMiner Lite software. Thematic analysis involving organizing, and summarizing qualitative data was adopted and codes were used to classify text excerpts into their appropriate categories.

Results: Summarily, mothers and health workers pointed out the following positive determinants: baby crying; educating the mothers on EIBF; support from midwives; training of health workers; health workers' knowledge of EIBF. They also pointed out the following barriers: delayed breast milk flow; lack of knowledge on the subject matter; mother and mother-in-law influence; mother's health status; mother's personal belief; no support from midwives; delivery via cesarean section; no record of EIBF; lack of training; and poor motivation.

Conclusions: The results show how vital the understanding of the concept and benefits of EIBF facilitates its practice from the perspective of mothers and health workers. Continuous investments to train health workers who in turn teach mothers should be prioritized.

KEYWORDS:

- Implementation science,
- Early Initiation,
- Breastfeeding

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INTRODUCTION

"If breastfeeding did not already exist, someone who invented it today would deserve a dual Nobel Prize in medicine and economics; for while breast is best for

lifelong health, it is also excellent economics" (1). Breastfeeding is an essential component of infant and young child nutrition, providing numerous

benefits for both mother and child. The World Health Organization recommends early initiation of breastfeeding within one hour of birth and exclusive breastfeeding for the first six months of life. However, despite the well-known benefits of breastfeeding, many barriers hinder its early initiation, and several facilitators promote it. Understanding these barriers and facilitators is crucial to promote optimal breastfeeding practices. Literature on breastfeeding is replete with a myriad of far-reaching benefits that early initiation of breastfeeding (EIBF) and exclusive breastfeeding (EBF) have on the nutritional and health status of children up till adulthood (2,3). In spite of the known benefits, the Nigerian demographic and health survey data reports a poor EIBF national practice rate of 42.1%. This practice further declines in the southeast (39.4%) and in Imo state (37%) (4). In the wake of the huge lacuna that exists between this effective nutrition-specific intervention and real-life practice the potential of implementation science to improve the uptake of this practice becomes pertinent (5).

There are several barriers and facilitators that influence the early initiation of breastfeeding. Some of the most reported barriers include lack of support from health-care providers. Health-care providers may not provide adequate information and counseling to new mothers regarding breastfeeding practices, leading to a delay in the initiation of breastfeeding. Additionally, some health-care providers may promote formula feeding over breastfeeding, which can negatively impact breastfeeding initiation rates (6, 7). Inadequate knowledge and awareness of breastfeeding benefits among mothers can also act as a barrier to early initiation of breastfeeding. Some mothers may not understand the importance of early initiation of breastfeeding, and the benefits it provides to the mother and the child, leading to delayed or sub-optimal breastfeeding practices (8). Cultural beliefs and practices can also act as a barrier to early initiation of breastfeeding. For example, in some cultures, mothers may believe that colostrum is harmful to the baby, and therefore delay breastfeeding until the milk comes in. Additionally, some cultures promote early supplementation with water or other liquids, which can interfere with early

breastfeeding initiation (9).

On the other hand, facilitators of early initiation of breastfeeding include supportive hospital practices such as skin-to-skin contact immediately after birth; breastfeeding education and counseling; availability of lactation consultants; community-based breastfeeding programs that provide support and education to new mothers (6, 7).

In conclusion, the barriers and facilitators of early initiation of breastfeeding are multi-factorial and complex. Understanding these factors is critical to developing effective strategies to promote early initiation of breastfeeding and improve infant and maternal health outcomes.

The Society for Implementation Science in Nutrition (SISN) defines implementation science in nutrition 'as an interdisciplinary body of theory, knowledge, frameworks, tools and approaches whose purpose is to strengthen implementation quality and impact' (10). This study sought to leverage on the potential of implementation science research to increase the uptake of the practice of EIBF.

This research paper assessed the determinants of early initiation of breastfeeding, highlighting the factors that affect the decision-making process of mothers and health-care providers in selected primary health care facilities in Imo state, Nigeria. The findings of this study will provide insights into strategies to promote early initiation of breastfeeding and improve infant and maternal health outcomes.

METHODOLOGY

Study Design and Location

A cross sectional study design was employed in this study. This study took place in four selected primary health care centres in Imo state.

Sample Size and Sampling Technique

A total of sixty-six mother-child pairs and 10 health workers were recruited at the selected primary health care centres through purposive sampling. This sampling technique is suitable for research involving qualitative methods of data collection and ensures that the participant can provide in-depth knowledge of the phenomena being researched on. Mothers who were present on immunization days were addressed on the research and those who met

the eligibility criteria were given a copy of the informed consent form to further acquaint themselves with the research objectives after which it was signed. The inclusion criteria were mothers who had infants within the first 6 months of age and mothers who reside in Imo state prior to the delivery of the child within 6 months of age. The criteria for exclusion were mothers who had babies over 6 months of age, mothers who did not reside in Imo state and mothers who did not have their youngest child who is within 6 months of age in Imo state. Only health workers (including the heads of the facility) who played a role in the labour room took part in the study.

The study protocol was approved by the UI/UCH ethics committee with assigned number: UI/EC/21/0290. Permission to recruit participants at the primary health care centres was obtained from the Director of Health at the Local Government Area headquarters.

Data Collection

A self-administered questionnaire was distributed to mothers to capture relevant socio-demographic data. The primary data collection employed a qualitative approach using focus group discussions (FGD) and in-depth interviews (IDI) involving mothers and health workers that lasted for at most 30 minutes. Of the 66 mothers, 38 took part in individual in-depth interviews. 28 mothers (comprising of 4 groups with 7 participants per group) partook in the FGD. All 10 health workers took part in the individual in-depth interviews. The FGD and IDI guide was developed by the authors and transcribed into the local language (Igbo) taking into account the various determinants that have previously emerged in published conceptual frameworks (11, 12).

Research assistants (RAs) played active role in the data collection process. They administered the questionnaires that capture socio-demographic information and moderated the in-depth interviews and focus discussion sessions. RAs were schooled on the objectives and relevance of the research, they were trained on qualitative data collection techniques and on ethical principles guiding human research. Training sessions were held virtually and lasted at least one hour for three days. The FGD and

IDI guides and other qualitative materials were reviewed in other for the RAs to properly acquaint themselves with the questions and to ensure rigorousness during the interviews. This was a vital focus of the training because the quality of qualitative data collected largely depends on the individual who plays the role as the "data collection instrument" (13).

The FGD and IDI guide contained open-ended questions that aimed at garnering the detailed perception of mothers and health workers on the barriers and facilitators of the practice of early initiation of breastfeeding (EIBF). The FGD and IDI guide was translated to the local language (Igbo) and where necessary the questions were asked and answered in Igbo.

All in-depth interviews and focus group discussions occurred within the vicinity of the health centre at the convenience of the mothers and health workers. After obtaining consent from participants, photographs were taken and audio recorders were used to record the interviews and discussions. Participants were recruited progressively until there were no new emerging themes. Recruitment and interviewing of participants lasted a duration of 6 weeks.

Data Analysis

All recordings of in-depth interviews and focus group discussions were transcribed in readiness for line-by-line coding and thematic analysis. Where interviews were conducted in Igbo, back-translation was used to translate and transcribe verbatim to English. The back-translation provided quality control and ensured accuracy. A subset of the transcripts for mothers (n=20) and health workers (n=5) were used to formulate a preliminary codebook. This codebook captured constructs that are vital in comprehending the facilitators and barriers to the practice of early initiation of breastfeeding from the perspective of the population of health workers and mothers who took part in this study.

QDA Miner 4 Lite, a web based qualitative analysis software was used to apply the predetermined codes to all other transcripts. Themes were then generated that classified the responses of the participants. Careful steps were taken to ensure the rigor of the

process leading up to the qualitative conclusions developed. The qualitative analysis software specially emphasizes reliability, objectivity and validity. Also, careful effort have been taken to interpret the text repeatedly by the analyst; to be very attentive to issues of internal validity which includes whether the themes have been consistently used over time and whether the defined meaning has been preserved. In addition, attention was paid to ensuring that the defined meaning of specific themes actually tally with what is contained in the text excerpts sorted into the themes.

RESULTS

Sociodemographic and basic Characteristics the respondents, spouses and index infants

The socio-demographic details of the mothers and their spouses are as shown in Table 1. Respondents aged 26-30 years constituted 42.4% and aged 31-35 years were 37.9%. About 79 percent of the respondents were Imo state indigenes and 6.1% each were from Abia and Enugu states. Majority of the respondents (62.1%) had tertiary education and the remaining 37.9% had not more than secondary education. Likewise, 65.2% of the respondents' spouses had tertiary education and 34.9% had not more than secondary education. About 46 percent of the respondents were engaged in business, 24.2% were civil servants, and 12.1% each were trader or housewives. About 59 percent of the respondents' spouses were businessmen, 21.2% were civil servants and 10.6% were professionals. About 23 percent of the respondents and 3.0% of the respondents' spouses earned below N10,000 monthly. Also, only 4.6% of the respondents and 10.6% of the respondents' spouses earned above N100,000 monthly.

Information on the mother-child pairs including age and delivery information is presented in Table 2. About 36 percent of index children were aged 3 months old, 30.3% were 2 months old and 18.2% were one month old; and about 52 percent of the index children were male. The common places of delivery were private health facility (40.9%), maternity centres (28.8%) and Primary Health Centres (19.7%). Only 60.6% of the infants had benefits of initiating breastfeeding within the recommended one hour of delivery and 93.9% were

apparently healthy at birth.

Barriers and Facilitators of Early Initiation of Breastfeeding in Imo State, Nigeria

The determinants of early initiation of breastfeeding obtained from this study is presented in Figure 1. Women demonstrated awareness and knowledge of the recommended practice of exclusive breastfeeding, however, their understanding of the concept of early initiation was poor. Early initiation of breastfeeding is often confused with the practice of exclusive breastfeeding. They communicated what they felt about the practice of EIBF and gave their perspectives on what they considered factors that could foster or bar this practice among mothers. The health workers communicated a good understanding of the concept of early initiation of breastfeeding and pointed out certain factors that facilitate and pose a barrier to this practice in the line of service.

Facilitators of the Practice of Early Initiation of Breastfeeding: Mothers perspectives

Some positive determinants of the practice of early initiation of breastfeeding were identified and categorized into the following themes: baby crying; educating the mothers on EIBF and its benefits; mother's knowledge on the benefits of EIBF; support from midwives and nurses; and good health status.

The cry of the Baby

One key factor that compelled mothers to put baby to breast within the stipulated one-hour window was when they heard their baby crying which is sometimes interpreted as a hunger cue.

"Immediately I gave birth to my baby he was seriously crying, I had to put him to breast" WBM5

"My baby was crying...What can encourage me to practice this EIBF is because breast milk is the only food, I give my baby, so if my baby starts crying, I breastfeed immediately." - IRM18

In addition to viewing the cries as a hunger cue mothers put their babies to breast to provide a soothing effect to stop baby from crying.

"...the baby was crying a lot, so the nurses said she's hungry I should breastfeed, because there's no water around." - WBM13

"...makes the baby to stop crying, because once you put the nipple in the mouth of the baby, it keeps quiet

whether the milk has started flowing yet or not." - OBM20
Educating the mothers on EIBF and its Benefits
The mothers identified the vital place of educating them on the concept and benefits of EIBF on upscaling the practice of EIBF. They highlighted the importance of being schooled on the subject matter at the health facilities especially during antenatal sessions.

"By enlightening the mothers...I think they do not know the importance because after I delivered all the women in the ward with me wanted to use milk that they bought but I told them the importance of Breastfeeding and they listened." Respondent EM5

"I think that the health facilities have a role to play in it because some women might not know anything about that. And if they give their teachings from there you would learn and start practicing it." Respondent IRM22

"It is very nice because I was taught that the first breast milk is very healthy for the child. So I was advised to try as much as possible to breastfeed my baby at that first time." WBM4

"...some of them don't know the benefits so they need to be sensitized and oriented... By sensitizing pregnant women about the importance and giving them orientation." WBM8

Mother's Knowledge of the Benefits of EIBF

The knowledge about early initiation of breastfeeding and its health benefits fosters its practice. The general knowledge of breastfeeding particularly exclusive breastfeeding appears popular; however, the detail of early initiation appears unclear to many mothers. Known benefits in other children may be helpful particularly among mothers who experience delayed lactation.

"Just knowing my baby will be strong, healthy and smart is enough to encourage me...It develops the baby's brain and makes the baby healthy." WBM1

"...not up to 1 hour but the thing is the breast milk did not start running at the moment. However, I allowed her to suck, until after 3 hours the breast milk started rushing... The benefits are uncountable but the most important one is that it will make your child healthy and free from other sickness. Sickness they can contact from dirty feeder." - IRM26

"When a woman sees how other children that was given exclusive breastfeeding, how they are looking she will be encouraged to do same for her child.

Every woman wants their child to be fine and healthy." WBM12

"The colostrum is very important for the child's health so we should be sure they take it. It helps the baby a lot...What motivated me is that I think it is okay to give your baby breast milk in that early stage." WBM7

Support of Midwives/Nurses

Health workers play vital roles in ensuring mothers practice early initiation of breastfeeding. Apart from teaching during antenatal sessions, follow up activities including support and demonstration at the time of delivery may be helpful in prompting compliance to EIBF.

"The only help they gave to me is that they told me give her breast, carry your breast and put inside her mouth. I told them the breast milk is not flowing. Then she said just put it inside her mouth with time it will start rushing." IRM26

"They helped me by pressing my breast to know whether something will come out, so when they helped me, they now said I should allow the baby to put her mouth so that the milk will come out, I continued doing it till it comes out." WBM11

"They cleaned up my nipples to ensure that the breast milk comes out." OBM11

"They taught me how to breastfeed my child, the position to keep her." IRM14

Good Health Status

Good health condition of the mothers is identified to facilitate the practice of EIBF.

"...I have to be healthy, because if the mother is not healthy, she cannot practice it." WBM2

"Good health and strength...As long as I am healthy and strong, I will practice EIBF." EM4

"..I had a vaginal delivery and nothing was preventing me from breastfeeding my baby immediately." OBM18

Barriers to the Practice of EIBF: Mothers perspectives
The identified barriers to the practice of EIBF are structured into six themes including delayed breast milk flow; lack of knowledge of the subject matter; mother and mother-in-law influence; mother's health status and complications during delivery; the personal belief of mothers; and no support from midwives and nurses.

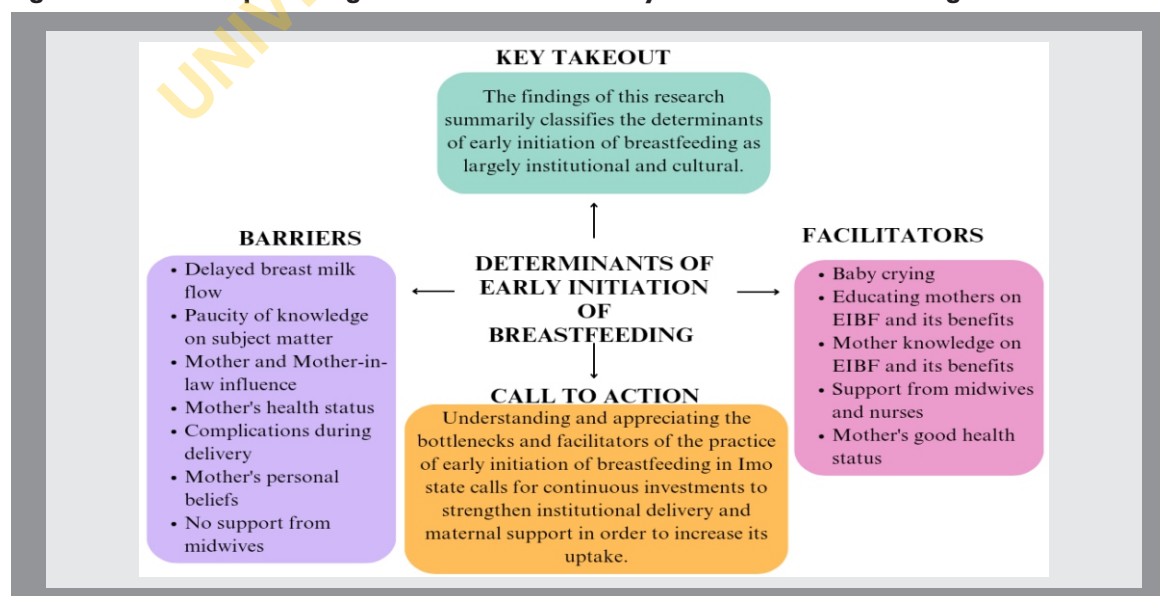
Table 1 Socio-demographic data of the respondents and spouse

Socio-demographic Data	Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)
Age (years)	Mothers		Spouse	
15-20	2	3.03		
21-25	3	4.55		
26-30	28	42.42		
31-35	25	37.88		
36-40	7	10.60		
41-45	1	1.51		
State of Origin				
Abia	4	6.06		
Akwa Ibom	2	3.03		
Anambra	1	1.51		
Benue	1	1.51		
Ebonyi	2	3.03		
Enugu	4	6.06		
Imo	52	78.79		
Highest Education				
Secondary	25	37.88	23	34.85
Tertiary	41	62.12	43	65.15
Occupation				
Artisan	1	1.51	2	3.03
Business	30	45.45	39	59.09
Civil Servant	16	24.24	14	21.21
Clerical	-	-	2	3.03
Housewife	8	12.12	-	-
Trader	8	12.12	2	3.03
Professional	2	3.03	7	10.61
Student	1	1.51		
Monthly Income				
Below 10,000	15	22.73	2	3.03
10,000 – 20,000	6	9.09	1	1.51
20,000 – 30,000	14	21.21	5	7.58
30,000 – 40,000	7	10.60	3	4.55
40,000 – 50,000	12	18.18	7	10.60
50,000 – 60,000	4	6.06	8	12.12
60,000 – 70,000	3	4.55	11	16.67
70,000-80,000	-	-	4	6.06
80,000 – 90,000	1	1.51	3	4.55
90,000 – 100,000	1	1.51	7	10.60
Above 100,000	3	4.55	13	10.60
No Idea	-	-	2	3.03
Total	66	100.0	66	100.0

Table 2 Basic information on the index child

Variables	Frequency (N)	Percentage (%)
Age of index child (Months)		
1	12	18.18
2	20	30.30
3	24	36.36
4	6	9.09
5	1	1.51
6	3	4.55
Gender of Child		
Female	32	48.48
Male	34	51.52
Place of Delivery		
Home	2	3.03
Maternity	19	28.79
Primary Health Centre	13	19.70
Private Health Facility	27	40.91
State Hospital	1	1.51
Federal (Secondary or Tertiary Hospital)	4	6.06
Mode of Delivery		
Caesarean Section	9	13.64
Vaginal delivery	57	86.36
Time of Initiating Breastfeeding		
Within the first 1 hour of delivery	40	60.61
Within 6 hours after delivery	17	25.76
Within 24 hours of delivery	3	4.55
More than 24 hours after delivery	6	9.09
Health Status of Child at Birth		
Healthy	62	93.94
Sick	4	6.06
Total	66	100.0

Figure 1: A mind map showing the determinants of early initiation of breastfeeding in Imo state. It also



shows the key take outs and call to action resulting from this study.

Delayed breast milk flow

A delay in milk flow after delivery posed a challenge to mothers and constitute a hindrance to initiating breastfeeding within one hour after delivery. A perceived delay in breast milk flow can prompt the introduction of water and breast milk substitutes. It mirrors a lack of patience on their part to allow the milk flow and also shows that lactation support tends to be missing.

"It was because my breast milk did not come out within 1 hour." OBM11

"... Other women don't practice EIBF because of their work and because their breast milk did not come out". OBM13

"Some women said their breast milk did not run till one week, so that was what made them to start giving their baby water and formula." IRM18

"If your breast milk doesn't start early to flow, then give the child water, while you wait for the breast milk to start flowing." WBM5

Lack of Knowledge on Subject Matter

Not being informed about the concept and benefits of early initiation of breastfeeding came up as a negative determining factor. The responses show that the quality of breastfeeding education on early initiation appears to vary across the health facility and emphasis on early initiation appears to be poor. There are indications that awareness of benefits of early initiation may prompt higher compliance.

"...I wasn't taught about it... Maybe because of the type of hospital or health center they did ante-natal or gave birth, they weren't taught about it and told the importance, because I don't think I would have practiced it if I didn't give birth to my baby where I did, since I wasn't taught about it during ante-natal." Em2

Mother's Health Status and Complications during Delivery

This came up as a bottleneck to the practice of EIBF. Mothers pointed out that having health challenges, fatigue, sore or cracked nipples are hindrances that come in the way of EIBF practice.

"...it was not easy because my breast was paining me at that time and even the baby was struggling with the breast." IRM20

"Some women do not practice it because of fatigue."

(Respondent EM5)

Mothers also spoke of the impeding effect that delivery through Cesarean section and other complications including excessive bleeding has on the practice of EIBF.

"...what can prevent the practice of EIBF after delivery is maybe if the mother has complications. Like me, I had complications during delivery." IRM17

"The reason why I didn't practice it immediately was because I was in pain and I was bleeding." EM1

"What can prevent me from practicing EIBF is if I did operation (C.S) because that was what prevented me from breastfeeding my two other children early but this current baby, I started breastfeeding her early." WBM9

The responses alluded to the place of an optimum state of maternal health as a vital payer in determining if mothers will put their baby to breast within the recommended one-hour window.

Mother and Mother-in-law Influence

Mothers and mothers-in-law influence decision to practice EIBF and could serve as a negative determinant of EIBF.

"Most of the young women think it is important but due to the pressure of where they are married to, either their mother or mother-in-law they may not keep to it. They may end up adding water." WBM13

"... For instance, when you carry your baby home for this festive season and the baby is crying and maybe your mother-in-law wants to give water but you say no because you're giving only breast milk. But they will not understand because they did not practice it in their own time."-WBM12

Personal Beliefs of Mothers

Some beliefs do not favor the practice of EIBF including the notion of the insufficiency of breast milk, appropriateness of giving a child water, unpalatability of breast milk, and change in appearance of the breast.

"Some of them think that early breastfeeding will make their breast come down." IRM10

"Maybe if the woman became pregnant outside wedlock, she wouldn't want to breastfeed for it not to affect the shape of her breast." EM1

"Some women say their breast milk is not good. It is sour. Or the baby even rejected the breast milk,

which shows that the breast milk isn't good." WBM5
No Support from Midwives and Nurses
Midwives and nurses (health workers) are important influencers of the practice of early initiation of breastfeeding, and where support from the health workers is lacking, this constitutes limitation to the practice of EIBF.

"I didn't get any assistance from the health workers."
EM3

"I did not get any support but the doctor asked me to get something that I took that enabled the breast milk to come out." OBM13

Facilitators of the Practice of EIBF: Health Workers Perspectives

Positive determinants of the practice of EIBF as envisaged by the health workers included educating mothers on benefits of EIBF; support of midwives/nurses/health workers concerned with delivery process; training of health workers; enhancing health workers knowledge on EIBF and its benefits; and the practice of rooming-in. In addition, the health workers identified they opportunities in demonstrating the benefits of using early initiation to teach the women of the many benefits associated with breastfeeding practices.

"By teaching. Both during antenatal, immunization, even when they are in lying in the ward...The health workers would tell the mothers so that they will be aware of the practice." W-BH7

"Giving the mothers health talks on the benefits of initiation of breast milk on time during ante-natal."
OH1

"...Training and re-training. So that you know what you are doing, the rationale behind everything, sometimes you might be influenced by what happens in the society...From time to time we may be called for a seminar, this seminar focus on breastfeeding of babies." W-BH8

"They have adopted it, they know it is researched and scientifically proven that it is the best milk for that child for the first 6 months so it has been adopted by all of them...My team is enlightened, they are all health aware they are all partners in enforcing exclusive breastfeeding. So I don't even need to sample the opinion, anyone that is talking to the mothers will talk because they are well informed and

fortified with the knowledge so they can impact...the benefits of breastfeeding and the dangers of mixed feeding." W-BH8

Responses also showed that health workers help mothers put babies to breast as a way of dealing with postpartum haemorrhage and placenta retention.

"But if the woman is bleeding we might allow her to breastfeed because breastfeeding helps in blood clotting, helping to control bleeding. If there is inseparability of the placenta, we put the baby to breast. When the baby starts suckling contraction will set in and the placenta will separate." W-BH8

"...If the placenta is yet to come out, it helps to control the bleeding and even helps when the placenta is coming out." W-BH9

Another key facilitator is the support of health workers concerned with the delivery process as support provided to the mothers within the short time after delivery stands as a key positive determinant of the practice of EIBF. Thus supporting the health workers to reduce the workload and create time to provide supportive supervision to the mothers of newborn to initiate breastfeeding is crucial.

"Not only support, I enforce because I am the nutrition focal person for the local government, so if I don't enforce it, who will practice it...if their children are crying, I will just go there 'Madam can you bring out the breast for this child. Let me position you. Let me show you how to breastfeed this child even while standing. I will bring out the breast and they will start laughing, I will tell them fix it like this..." W-BH8

"...immediately after the mother leaves the labour room, we ensure that she washes her breast, and then we give her her baby immediately to feed, even if there's no flow yet, it helps the baby to learn how to suck and also know the mother's scent." OH1

"In this health center we put the child to the breast immediately the child is born even if the placenta is yet to come out." W-BH9

Rooming-In which is the practice of keeping mother and child together fosters the initiation of breastfeeding as early as possible.

"We do a lot like separating the mother from the baby, cleaning the baby with oil, weighing the baby, finding out the Apgar score of the baby, we give the baby vitamin k. We also suction the baby with a mucus extractor to ensure free movement in the

airways, then we rub the stomach of the mother to help her deliver the placenta before padding her up...then we bring the mother and child together for the mother to breastfeed." OH3

"After cleaning, you carry the baby to the lie in Ward and ask her to breastfeed her baby so the baby can get that first breast milk (colostrum) that helps the baby body" W-BH7

"As soon as the baby is born, after clamping we cut the cord then clean the baby with oil. Then we wrap the baby making sure that the baby is not exposed to air. After that we initiate skin to skin contact that is mother and child then breastfeeding. Oh2

Barriers to the Practice of EIBF: Health Workers Perspective

Some determinants that impede the practice of EIBF from the perspective of health workers included delayed breast milk flow; mother's health status/complications during delivery; rhesus incompatibility; institutional limitations during delivery process; no record of EIBF; lack of training and appropriate work tools; mother and mother-in-law influence; personal beliefs of mothers; delivery via cesarean section; mothers lack of knowledge on the benefits of EIBF; poor motivation/excessive workload. The ill health status of mothers and complications during delivery as limiting factors that posed a barrier to the practice of EIBF.

"Yes there are some certain factors where by the mother is very sick, and also if she has an infection that will be harmful to the baby we stop it...when you find out during delivery that the mother is HIV positive, we will not allow her to breastfeed her child, without taking the necessary and proper precautions because it may affect the life of the child." IH4

"There may be complications during delivery so before we can run up and down time have already pass..." IH5

If that woman is not medically fit and we are just struggling to revive the woman we might not also allow her to breastfeed." W-BH8

Another issue is the state of the breast of the mother affects her practice of EIBF.

"What makes it difficult to practice is because some of them may not have cleaned up the nipple well enough to allow free flow of the milk, or mothers that have their nipples retracted...If the mother has

cancer or if the mother's breast is engorged." OH3

"It is easy to practice EIBF but some women find it difficult because they fail to massage the nipple which leads to breast cracking." OH2

In addition, the health workers indicated that some mothers already had different beliefs and preconceived mindsets that limit early initiation breast milk.

"They felt that first milk (colostrum) was poison and they did not practice EIBF." OH2

"...Some mothers also say their breast milk is bitter and so they can't give it to their babies...Some mothers would say they wouldn't want their breasts to sag, so we try to educate them on the benefits of breastfeeding..." W-BH7

"...it makes me eat too much, they are now sucking blood, I don't have enough, I have not eaten enough, it will tie me down, it will make me get flat breast...Mothers who are athletes do not like breastfeeding because they like to keep fit..." W-BH8

The influence of mothers and mothers-in-law on the decision to practice EIBF was also identified by the health workers.

"We teach them, some agree some do not, some listen to their mothers and mother-in-laws more than us." W-BH7

"...But some of their mother-in-laws will say leave them, you want my baby to die there is oesophagus for water and there is oesophagus for breast milk, not knowing that the breast milk contains water. IH5
Mother and child presenting with rhesus factor incompatibility was pointed out as a barrier to the practice of EIBF. The treatment may necessitate delay in the commencement of breastfeeding immediately after delivery.

"The Rhesus factor, like in cases where the mother has negative Rhesus factor and the baby has positive Rhesus factor the mother is advised not to initiate breastfeeding so it would not poison the child." OH2

"In the case of Rhesus non compatibility, some medications would be administered first before the mother would start breastfeeding to avoid poisoning the child" Oh1

The lack of record or register that capture the time when mothers began initiating breastfeeding was

identified as another barrier. In essence, recording activities could motivate the health workers to provide necessary support to the mothers of newborn to initiate breastfeeding within the recommended time.

"I don't think we record when the baby is put to breast. We just record delivery." IH5

"We don't have such because we don't have time for that, we only help the mother to initiate the process on time." OH3

"We record the time of birth, but we don't record the time of initiation of breastfeeding." IH4

Health workers identified delayed breast milk flow as a factor preventing women from initiating breastfeeding early.

It's difficult for some mothers because their breast milk doesn't start flowing out early enough." OH1

Some barriers that arise from the institutional practices within the primary health centres (PHCs) were also identified. PHCs are limited with respect to the quality and extent of health services they can provide at the point of delivery. Mothers who present with complicated cases need the expertise a doctor who can render that to them. As a result of this they are often referred to a tertiary or secondary health facility. Time spent moving to another health facility comes in the way of mothers initiating breastfeeding. These were their responses when asked about institutional challenges that limit the practice of EIBF.

"Going to operation because they do not do C.S in the health center." IH5

"When the mother is sick and we cannot do something about it since this is a health center and we have to refer to a hospital, we aren't able to ensure that EIBF is carried out in cases like that because it might take a while before the mother gets the necessary treatments before breastfeeding." EH6

Few of the health workers identified poor motivation and excessive workload as hindrances for institutional support to ensure the practice of EIBF.

"Nothing prevents the health care workers except if there is workload." OH3

"But after doing all these work for 7 months we have not been paid salary it doesn't give joy. It is affecting everybody." IH5

DISCUSSION

Perception of Mothers on the Barriers to and the Facilitators of the Practice of EIBF

Like our study, delayed breast milk flow has been identified in other studies as a negative determinant of EIBF practice (14,15). Ezechi and Otobo in a recent publication pointed out the delayed production of and flow of breast milk as a bottleneck to the practice of both early initiation of breastfeeding and exclusive breastfeeding (15). In the study by Ezechi and Otobo, over 60% of mothers who took part attested that the delayed breast milk flow was the major reason why they did not go ahead with initiating breast milk within the recommended time frame (15). A randomized pilot study by Parker et al. on the effect of early initiation of milk expression on milk volume shows that it has a positive effect on the milk volume produced by the mothers (16). For appropriate breastfeeding practices to be scaled up, the perception of mothers on low milk production need to be tackled by educating them on the dynamics of milk let down and production; increased frequency of emptying breasts; and also the use of galactagogues (17).

An output from our research in Imo state shows the determining role that maternal health status plays in the practice of timely initiation of breastfeeding. Some mothers identify HIV/AIDS as a possible barrier. This finding is in tandem with the findings of a recent similar study where mothers identified ill health as a major setback limiting the practice of early initiation of breastfeeding (15).

Knowing the importance of EIBF and EBF spurs mothers to want to practice them. Conversely, a paucity of knowledge on the subject matter of EIBF and EBF is bound to limit their practice. Ariyani and Handayani highlighted the role of mother's knowledge as a positive determinant of EIBF in a similar study (18).

Results from our study showed the perspective of mothers on how a lack of support from the midwives and nurses and paucity of knowledge on EIBF can impede the practice of early initiation of breastfeeding in line with Ariyani and Handayani (18). These two factors make up key components of

the antenatal care packages and according to the findings of Woldeamanuel, where antenatal follow up is lacking there is a very low likelihood of mothers practicing early initiation of breastfeeding (19). Just as the findings from a Tanzania study pointed out, there is missed opportunity in counselling mothers on early initiation of breastfeeding and its benefits within this health facilities during antenatal (20).

Earlier studies agree with the importance of mothers being educated on the benefits of EIBF as they highlight the strong association between educating and motivating mothers and their practice of putting baby to breast within 1 hour after delivery (21, 22). Similar to the results of this study, Young et al. reported a positive association between counselling during pregnancy/delivery, maternal knowledge, and vaginal delivery at a health facility with the practice of EIBF (23). The study by Young et al. (23) highlighted that EIBF could be scaled up by 25% under optimum programme implementation, taking into account the factors that facilitate its practice. Our study also shows results that are consistent with research carried out in other contexts, showing how mothers with higher knowledge and increased decision-making ability improved in their breastfeeding practices (24, 25).

Schooling mothers on appropriate breastfeeding practices goes a long way in determining if they will practice them or not. During the antenatal period, mothers are taught about breastfeeding, and this contributes to forming their intention to practice it or not. Permatassari et al. in a study that explores if breastfeeding intention among pregnant mothers is associated with EIBF, discovered that mothers with high breastfeeding intention are more likely to initiate breastfeeding 5 times more than those who have low intention (22).

Some studies researching on the determinants of delayed initiation of breastfeeding, factors such as delivery via Caesarean section; complications during delivery; and absence of neonatal care guidelines were identified as barriers to the practice of early Initiation of breastfeeding (26, 27, 28). These findings agree with the bottlenecks identified in our study. Berde and Yalcin using a nationally representative data for Nigeria arrived at similar findings that delivery via Caesarean section stood as a bottleneck impeding the practice of EIBF (29). Ezeh

et al. also highlighted women giving birth through Caesarean section as one factor inhibiting the practice of early initiation of breastfeeding. The study which focused on selected countries in the Economic Community of West African States (ECOWAS) showed that the practice of early initiation of breastfeeding was particularly lower in some countries including Nigeria (30). The study showed that the category of women who were more likely not to practice early initiation of breastfeeding included women who had their babies through the Caesarean section route. This begs the need to find ways to better support women who have complications during delivery and who give birth via Caesarean section to practice putting baby to breast within one hour of birth (26).

Since 2006, Awi and Alikor documented vaginal delivery lasting less than 12hrs and support gotten after delivery as some of the factors fostering the practice of early initiation of breastfeeding. This study sought to find out the barriers of early initiation of breastfeeding among mothers of healthy neonates in the University of Port Harcourt teaching hospital. They reported that the most vital predictor of early initiation of breastfeeding was the contact of mother and child after delivery with help provided to initiate breastfeeding (31). This finding is in tandem with that of our research as mothers alluded to the support gotten from midwives and nurses as a factor that helped them initiate breastfeeding immediately after vaginal delivery. A Tanzanian study that reported a positive association between mothers' knowledge of early initiation of breastfeeding and the practice also highlighted how delivery through the vaginal route is significantly associated with the practice of putting baby to breast within 1 hour of birth (20).

Some mothers reported that the influence of their mother-in-law and mother could affect their practice of EIBF. According to previous studies the role that this two category of persons, who make up the social network of mothers, play in limiting the practice of early initiation of breastfeeding. Mothers and mother-in-laws hold strong opinions pertaining to feeding and care of their grandchildren and this can override the desire and willingness that the new

mothers have to follow the recommended infant and young child feeding practices (32, 33).

Mothers reported that hearing their baby cry was one factor that motivated them to initiate breastfeeding on time. At that moment when their babies cried putting the baby to breast became their priority. They also mentioned how the health workers advised them to bring baby to breast at each crying episode.

Perception of Health Workers on the Barriers to and the Facilitators of the Practice of EIBF

Health workers stated that the health status of mothers was a determinant of the practice of EIBF. Their responses included what they think about how health issues such as HIV/AIDS and cancer can limit the practice of EIBF. Maternal ill health as a factor impeding the early initiation of breastfeeding is a common discovery across the world. A systematic review of literature on EIBF bottlenecks in South Asia, among other factors, reported the ill health of mother at delivery as a barrier to early initiation of breastfeeding.³³ A similar result was derived from the secondary analysis of a WHO survey on the prevalence and determinants of EIBF. Results revealed that women who had complications during delivery were less likely to practice EIBF (26).

Health workers also pointed out that some beliefs that the mothers had negatively affected their practice of EIBF. These beliefs had to do with their perception of breast milk and a possible disfiguring of their breasts if they engaged in breastfeeding. Also showing the impeding role that beliefs play in hindering the practice of EIBF are the findings from a study in Northwest Nigeria, which qualitatively explored the sociocultural determinants of exclusive breastfeeding practices (34). According to the 2019 study, religious leaders instructed the husband, mother or grandmother to give a solution made of Islamic writing, honey and dates, as well as holy water. Similar findings have also surfaced from another survey in Northwest Nigeria (35). There, colostrum was considered by the mothers to be spoiled and instead they gave their newborns either honey, animal milk, or the mixture washed out from the inscription of the Holy Koran on slates while they

awaited the flow of the unspoiled milk. A study by Hadisyatmana *et al.* (2021), also reports that the beliefs of mothers including their perception of colostrum as being dirty affects the practice of EIBF (36). The influence of mothers and mother-in-laws on the uptake of appropriate breastfeeding practices are well articulated in literature. A systematic review of literature of early initiation of breastfeeding among mothers in South Asia alluded to this negative determinant as a bottleneck faced in the practice of EIBF. The study reported that mothers were negatively influenced by the opinion of their mother-in-law (33). In congruence with this, a study on the extent of influence exerted by the individuals who make up the social network (father, mother, mother-in-law) of a mother on breastfeeding practices showed that the opinion of a mother's mother-in-law played a higher role (32).

Delay in the breast milk flow of new mothers was identified as a bottleneck to the practice of EIBF. The health workers who answered in this light tagged this to be a challenge mother's face that discourages them from bringing the baby to breast as soon as possible. A Ghanaian study on the determinants of breastfeeding reported this to be the key determining factor faced by mothers against the practice of EIBF (14, 15).

According to the results of our study, health workers educating mothers on the nutritional and health benefits of practicing early initiation of breastfeeding is a key positive determinant of EIBF practice among mothers in Imo state. These health workers who are in a good place to pass on health information see this as important because it helps in mother preparedness ahead of the day of delivery (37). This finding is similar to that carried out in Northern Ghana where results from the study revealed that getting word of breastfeeding information while pregnant plays a positive role in encouraging the practice of EIBF (38). Also relevant to this finding is the recommendation from a Papua Guinea study on the determinants of EIBF that health providers should educate mothers its benefits as a way of improving their uptake of this practice (39). Responses of health workers show that they identify capacity building through constant training as a positive determinant of EIBF practice. Samuel *et al.* in 2016, showed the place of frequent training as a

way of building the capacity of primary health care workers to ensure the effective propagation of appropriate IYCF practices in a study that evaluated the effect of IYCF training on knowledge, attitude and service delivery of health workers (37). Training of health care workers is also in line with the recommendations in the 2020 edition of the Global Nutrition Report to invest in human resources and improve the quality of their service delivery through development and educational opportunities (40). Ariyani and Handayani (2015), made reference to the support of mid wives and health workers concerned with the delivery process highlighting it as a positive determinant of the practice of EIBF (18).

A paucity of knowledge on the part of mothers on appropriate breastfeeding practices was seen as a bottleneck. The responses of health workers during the interview suggested that they understood the import of mothers being armed with the right information. This is in line with the findings of Young *et al.* (2020) where giving prelacteal feeds had a lower likelihood when mothers had greater knowledge delivered in a health facility (23). Prior literature from other contexts also reveals how the support provided by health workers to mothers at delivery and the counselling they receive during pregnancy helps increase their likelihood of practicing EIBF (41, 42). These literatures, emphasizing the vital role that health workers play in supporting mothers, show that mothers were 1.7times more likely to put their babies to breast within one hour of birth. In our study, when health workers knew the benefits of EIBF they tried to enforce it. They considered the practice helpful in the expulsion of the placenta and in the prevention of postpartum hemorrhage. This information that drives their action is correct as the practice of early initiation of breastfeeding has been seen to positively affect the involution of the uterus (43). The stimulating effect that occurs when the baby sucks the nipples causes the release of the hormone oxytocin that speeds up uterine involution and reduces blood loss. Ariance *et al.* (2021) discovered that mothers who put their babies to breast early had a significant reduction in blood loss and experienced a faster return of their reproductive organs to their original position (43).

CONCLUSION

A key observable insight from the results of this study gives credence to the fact that multi-factorial determinants affecting early initiation of breastfeeding practice calls for the need to have measures in place at various levels to promote, protect and support its practice among women. The findings of this research show how vital the understanding of the concept and benefits of EIBF facilitates its practice from the perspective of mothers and health workers. Continuous investments to train health workers who in turn teach mothers should be prioritized. Recommendations stemming from this research includes follow-up studies should be carried out at a higher scale and should include women from the different levels of health care facilities. These studies should look at the determinants of EIBF on a larger scale; actions taken by concerned stakeholders to ensure the frequent training of health workers at service delivery points; and developing strategies that tackle the poor EIBF practice rate in Imo state.

A key limitation of this study is that qualitative studies are often ungeneralizable to a larger populace.

Author Contributions

Conceptualization and Methodology: COAP, FS & AO, Data curation & analysis: COAP: Investigation & original writing : COAP, FS & AO: Writing, review & editing: COAP, AO, AJO, CCN, FS & KA, Supervision: FS & KA

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